



**CITY OF LODI
COUNCIL COMMUNICATION**

AGENDA TITLE: Approve Request for Proposal to Provide Professional Services for Preliminary Engineering Work on the Westside Substation (EUD)

MEETING DATE: July 18, 2007

PREPARED BY: Electric Utility Director

RECOMMENDED ACTION: Approve request for proposal to provide professional services for preliminary engineering work on the Westside Substation.

BACKGROUND INFORMATION: Growth is occurring throughout Lodi and the Electric Utility Department (EUD) has planned to build a fifth substation at the western area of the City limits. The substation site has been in Lodi's electric facilities plan for some time and was purchased in 2003 as land was available. The site is called the new Westside Substation.

The request for proposal will cover the preliminary engineering and design activities on the new Westside Substation. The initial task list includes the following:

1. Soil resistivity test
2. Preliminary ground grid design as per IEEE Standard 80
3. Ground potential rise (GPR) study
4. Preparation of preliminary substation layout, design criteria, and cost/benefit analysis
5. Engineering and design of perimeter block wall fence and landscape

Items 1 and 2 are needed to complete the GPR study which will be provided to the telephone and communication companies for ground fault protection. Item 4 will be the basis for developing the final substation facility design. Following the design of item 5, it will be advertised for bid and construction.

The location of the new Westside Substation provides a strategic site for power system interconnection within the City of Lodi boundaries. The existing 60kV loop will terminate in the substation. The other planned 60kV line from the Industrial Substation traversing via Harney Lane through Lower Sacramento Road will also terminate in the substation. On June 20, 2007 as per Resolution No. 2007-118, the City Council awarded the siting and routing services contract to evaluate the transmission interconnection to the West. A double-circuit, 60kV transmission line, once completed, will connect to the new Westside Substation. The substation facility will provide load serving capacity to planned development projects like Westside Project, Southwest Gateway Project and other identified annexation areas with a total estimated load of approximately 16MW. The Westside substation will be used to reduce existing loads from the Henning Substation.

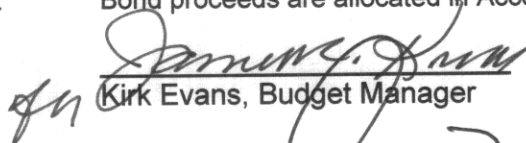
The construction of new substation facility entails tasks requiring lengthy execution, adjustment, and repetitive negotiation and coordination in design and engineering activities as described in the attached Exhibit A. Therefore, staff is requesting City Council approval of the request for proposal for the preliminary engineering work on the Westside Substation.

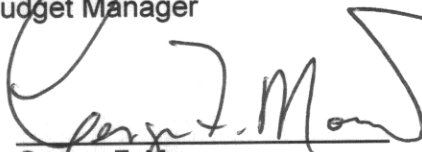
FISCAL IMPACT: Activity is proposed in EUD's fiscal year 2007/08 budget proposal under Account No. 161657. Additional funding might be needed due to the inclusion of the GPR

APPROVED: 
Blair King, City Manager

study and the perimeter fence design and construction. Estimated cost range is \$875,000 to \$950,000.

FUNDING AVAILABLE: Bond proceeds are allocated in Account No. 1611082.


Kirk Evans, Budget Manager


George F. Morrow
Electric Utility Director

PREPARED BY: Demy Bucaneg, Jr., P.E., Manager, Engineering & Operations

GFM/DB/lst

Attachments (1)

Westside Substation Timetable

I. Preliminary Engineering Phase

- Soil resistivity test = 1 week
- Preliminary ground grid design = 2 weeks
- GPR study = 2 weeks
- Preparation of preliminary substation layout, design criteria, and cost/benefit analysis = 5-6 months
- Engineering and design of perimeter block wall = 4-6 months

II. Block wall Construction

- Environmental study (exemption) = 1 week
- Approval and advertisement = 1-2 months
- Bid process = 1 month
- Award and contract approval = 2-3 months
- Permitting = 2 weeks
- Construction and turnover = 4-5 months

III. Substation Final Design Phase

- Approval of engineering services and advertisement = 1-2 months
- Bid process = 2-3 months
- Award and contract approval = 2-3 months
- Engineering and design = 10-12 months
- Approve plans and specifications = 1-2 months
- Prepare specifications for long lead-time equipment = 2-3 months
- Approval and advertise equipment specifications = 1-2 months
- Bid process = 1-2 months
- Award and PO approval = 1 month
- Order and delivery = 14-18 months (as of June 30, 2007)

IV. Environmental Study

- Initial study = 3-4 months

V. Substation Construction

- Advertise and bid process = 2-3 months
- Award and contract approval = 2-3 months
- Construction = 10-12 months
- Test and commissioning and turnover = 1 month

Note: Estimated three to three and a half year Westside Substation development from Year 2007 to 2011.